



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: <b>Ben-Ari, Haim</b>	Group Art Unit: <b>2683</b>  Examiner: <b>Wesley L. Kim</b>
Application No.: <b>10/072,714</b>	
Filing Date: <b>February 5, 2002</b>	
For: <b>SYSTEM AND METHOD FOR GENERATING A DIRECTIONAL INDICATOR ON A WIRELESS COMMUNICATIONS DEVICE DISPLAY</b>	

**DECLARATION OF HAIM BEN-ARI UNDER 37 C.F.R. 1.131**

I, Haim Ben-Ari, a citizen of the United States, hereby declare and state as follows:

1. I am the sole inventor of the subject matter of Claims 1-22 now pending in the above-identified patent application.
2. Prior to June 27, 2001, in the United States, I conceived of the inventions claimed in pending Claims 1-22 and used due diligence in reducing the claimed inventions to practice.
3. Exhibit A is a copy of the relevant portions of the Kyocera Wireless internal disclosure document sent by me to Kyocera Wireless' internal patent department disclosing the inventions claimed in the present application.
4. The dates highlighted on page 2 of Exhibit A establish that I was in possession of the inventions claimed in the present application, as amended in the amendments filed here with, at least as early as June 2001.
5. All statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of any application for which it is used.

October 7, 2005  
Date

/ Haim Ben-Ari /  
Haim Ben-Ari



EXHIBIT A

Date: Fri, 29 Jun 2001 09:30:21 -0700 (PDT)  
From: bben@kyocera-wireless.com  
To: kwc.patents@kyocera-wireless.com  
Cc:  
Subject: Invention Disclosure Form  
Reply-To:  
X-Mailer: MailForm version 1.0.2



title: Digital Compass card for cell phones using Two-Axis Magneto  
Resistive Sensor

purpose: 1. Adding Digital Compass capability to cellphones for heading  
and or other applications

2. Integrating Digital electronic Compass with GPS enabled  
phones enhancing GPS Applications.

priority: High

priority\_explain:

Evaluate and assess the Priority level ?..

submitter\_email:

bben

invent1\_name: Ben Ben-Ari

invent1\_email: bben

invent1\_phone: X21952

invent1\_suite: A441G

invent2\_name:

invent2\_email:

invent2\_phone:

invent2\_suite:

invent3\_name:

invent3\_email:

invent3\_phone:

invent3\_suite:

invent4\_name:

invent4\_email:

invent4\_phone:

invent4\_suite:

invent5\_name:

invent5\_email:

invent5\_phone:

invent5\_suite:

invent6\_name:

invent6\_email:

invent6\_phone:

invent6\_suite:

public\_use: Invention was not disclosed to the public, but may be  
disclosed in the near future.

concept\_date: 5/4/01

practice\_date: 6/4/01

construct\_start\_date:  
6/18/01

construct\_end\_date:  
in process

contract:

contract\_project:  
PosLoc

contract\_acct: 78201

funded: Yes

funded\_project: Tech3300s-GPS

funded\_acct: 78201

operating\_environ:

Invention will be used in cellphones and possibly other devices such as GPS enabled cellphones.

info\_sources: Invention is based on using Honeywell's Two-Axis Magneto Resistive sensor and interface hardware and software to cell phones.

background: No prior use of this device or invention in cell phones.

operation: The Two-Axis Magnetic sensor has 2 balanced magneto resistive bridges which have high sensitivity to magnetic field changes. The change in the magneto resistor of the bridge is amplified and converted to digital by using A/D converter and microcontroller to calculate the ratio  $dy/dx$ . The software user interface support will have the compass displayed on the cellphone display.

misc: The compass card will be designed by using the Two-Axis magneto resistive sensor, the PIC Microcontroller and will support circuitry to provide set/reset and offset to reduce the effect of undesirable surrounding magnetic fields resulting from external magnet or magnetic material. The heading will be calculated using the ratio of the magnetic field change of Axis Y over Axis X which will be calculated by the Microcontroller and the compass heading will be displayed on the cell phone display.